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<b>TRANSMITTAL LETTER TO THE UNITED STATES DESIGNATED/ELECTED OFFICE (DO/EO/US) CONCERNING A SUBMISSION UNDER 35 U.S.C. 371</b>		ATTORNEY'S DOCKET NUMBER 05-1003-B5
INTERNATIONAL APPLICATION NO. PCT/US2005/003483	INTERNATIONAL FILING DATE 27 January 2005	U.S. APPLICATION NO. (If known, see 37 CFR 1.5) 10/587253 TUE 10/05/2004
PRIORITY DATE CLAIMED 28 January 2004		
TITLE OF INVENTION MAN2AS As Modifiers of the IGFR Pathway and Methods of Use		
APPLICANT(S) FOR DO/EO/US Lori FRIEDMAN, Helen FRANCIS-LANG, Annette L. PARKS, Kenneth James SHAW, HaiGuang ZHANG and Timothy S. HEUER		
Applicant herewith submits to the United States Designated/Elected Office (DO/EO/US) the following items and other information:		
<ol style="list-style-type: none"> <li><input checked="" type="checkbox"/> This is a <b>FIRST</b> submission of items concerning a submission under 35 U.S.C. 371.</li> <li><input type="checkbox"/> This is a <b>SECOND</b> or <b>SUBSEQUENT</b> submission of items concerning a submission under 35 U.S.C. 371.</li> <li><input type="checkbox"/> This is an express request to begin national examination procedures (35 U.S.C. 371 (f)). The submission must include items (5), (6), (9) and (21) indicated below.</li> <li><input checked="" type="checkbox"/> The US has been elected (Article 3).</li> <li><input checked="" type="checkbox"/> A copy of the International Application as filed (35 U.S.C. 371 (c)(2))           <ol style="list-style-type: none"> <li><input checked="" type="checkbox"/> is attached hereto (required only if not communicated by the International Bureau).</li> <li><input checked="" type="checkbox"/> has been communicated by the International Bureau.</li> <li><input type="checkbox"/> is not required, as the application was filed in the United States Receiving Office (RO/US).</li> </ol> </li> <li><input type="checkbox"/> An English language translation of the International Application as filed (35 U.S.C. 371 (c)(2))           <ol style="list-style-type: none"> <li><input type="checkbox"/> is attached hereto.</li> <li><input type="checkbox"/> has been previously submitted under 35 U.S.C. 154(d)(4).</li> </ol> </li> <li><input type="checkbox"/> Amendments to the claims of the International Application under PCT Article 19 (35 U.S.C. 371(c)(3))           <ol style="list-style-type: none"> <li><input type="checkbox"/> are attached hereto (required only if not communicated by the International Bureau),</li> <li><input type="checkbox"/> have been communicated by the International Bureau.</li> <li><input type="checkbox"/> have not been made; however, the time limit for making such amendments has NOT expired.</li> <li><input type="checkbox"/> have not been made and will not be made.</li> </ol> </li> <li><input type="checkbox"/> An English language translation of the amendments to the claims under PCT Article 19 (35 U.S.C. 371 (c)(3)).</li> <li><input type="checkbox"/> An oath or declaration of the inventor(s) (35 U.S.C. 371 (c)(4))</li> <li><input type="checkbox"/> An English language translation of the annexes of the International Preliminary Examination Report under PCT Article 36 (35 U.S.C. 371(c)(5)).</li> </ol>		
<b>Items 11 to 20 below concern documents) or information included:</b> <ol style="list-style-type: none"> <li><input checked="" type="checkbox"/> An Information Disclosure Statement under 37 CFR 1.97 and 1.98.</li> <li><input type="checkbox"/> An assignment document for recording. A separate cover sheet in compliance with 37 CFR 3.28 and 3.31 is included.</li> <li><input type="checkbox"/> A preliminary amendment.</li> <li><input checked="" type="checkbox"/> An Application Data Sheet under 37 CFR 1.76.</li> <li><input type="checkbox"/> A substitute specification.</li> <li><input type="checkbox"/> A power of attorney and/or change of address letter.</li> <li><input checked="" type="checkbox"/> A computer-readable form of the sequence listing in accordance with PCT Rule 13ter.2 and 37 CFR 1.821- 1.825.</li> <li><input type="checkbox"/> A second copy of the published International Application under 35 U.S.C. 154(d)(4).</li> <li><input type="checkbox"/> A second copy of the English language translation of the international application under 35 U.S.C. 154(d)(4).</li> </ol>		

This collection of information is required by 37 CFR 1.414 and 1.491-1.492. The information is required to obtain or retain a benefit by the public, which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 15 minutes to complete, including gathering information, preparing, and submitting the completed form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: AmericaMails@USPTO.GOV, RCT, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

www.USCourtForms.com

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U.S. APPLICATION NO. (if known, see 37 CFR 1.5) To Be Assigned	INTERNATIONAL APPLICATION NO. PCT/US2005/003483	ATTORNEY'S DOCKET NUMBER 05-1003-B5			
20. Other items or information: Copy of Forms PCT/ISA/237 (January 2004), Form PCT/ISA/220 (January 2004), Form PCT/ISA/210 (January 2004) and a Statement Under 37 C.F.R. § 1.821(f).					
The following fees have been submitted		CALCULATIONS PTO USE ONLY			
21. <input checked="" type="checkbox"/> Basic national fee (37 CFR 1.492(a)) .....\$300		\$ 300.00			
22. <input checked="" type="checkbox"/> Examination fee (37 CFR 1.492(c))					
If the written opinion prepared by ISA/Us or the international preliminary examination report prepared by IPEA/US indicates all claims satisfy provisions of PCT Article 33(1)-(4) .....\$0 All other situations .....\$200		\$ 200.00			
23. <input checked="" type="checkbox"/> Search fee (37 CFR 1.492(b)) If the written opinion prepared by ISA/Us or the international preliminary examination report prepared by IPEA/US indicates all claims satisfy provisions of PCT Article 33(1)-(4) .....\$0 Search fee (37 CFR 1.445(a)(2)) has been paid on the international application to the USPTO as an International Searching Authority .....\$100 International Search Report prepared by an ISA other than the US and provided to the Office or previously communicated to the USA by the IB .....\$400 All other situations .....\$500		\$ 400.00			
TOTAL OF 21, 22 and 23 =		\$ 900.00			
<input type="checkbox"/> Additional fee for specification and drawings filed in paper over 100 sheets (excluding sequence listing in compliance with 37 CFR 1.821(c) or (e) or computer program listing in an electronic medium) 37 CFR 1.492(j)) The fee is \$250 for each additional 50 sheets of paper or fraction thereof.					
Total Sheets	Extra Sheets	Number of each additional 50 or fraction thereof (round up to a whole number)			
64	-100 =	0			
64 -100 = /50 = 0		x \$250			
Surcharge of \$130.00 for furnishing any of the search fee, examination fee, or the oath or declaration after the date of commencement of the national stage (37 CFR 1.492(h)).		\$			
CLAIMS	NUMBER FILED	NUMBER EXTRA	RATE	\$	
Total claims	25	-20 =	5	x \$50	\$ 250.00
Independent claims	4	-3 =	1	X \$200	\$ 200.00
MULTIPLE DEPENDENT CLAIM(S) (if applicable)			+ \$360	\$	
TOTAL OF ABOVE CALCULATIONS =				\$ 1350.00	
<input type="checkbox"/> Applicant claims small entity status. See 37 CFR 1.27. Fees above are reduced by ½.				0	
				SUBTOTAL = \$ 1350.00	
Processing fee of \$130.00 for furnishing the English translation later than 30 months from the earliest claimed priority date (37 CFR 1.492(i)).				+	\$
				TOTAL NATIONAL FEE =	\$ 1,350.00
Fee for recording the enclosed assignment (37 CFR 1.21(h)). The assignment must be accompanied by an appropriate cover sheet (37 CFR 3.28, 3.31). \$40.00 per property				+	\$
				TOTAL FEES ENCLOSED =	\$ 1,350.00
				Amount to be refunded:	\$
				Amount to be charged:	\$

10/587253  
IAP11 Rec'd PCT/PTO 26 JUL 2006

PTO-1390 (Rev. 07-2005)

Approved for use through 3/31/2007. OMB 0651-0021

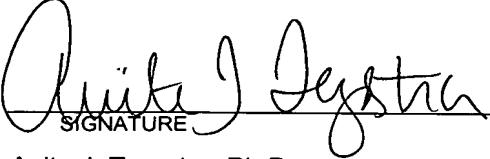
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

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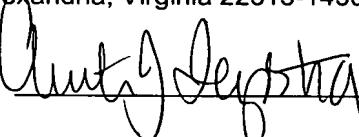
- a.  A check in the amount of \$ 1,350.00 to cover the above fees is enclosed.
- b.  Please charge my Deposit Account No. \_\_\_\_\_ in the amount of \$ \_\_\_\_\_ to cover the above fees.  
A duplicate copy of this sheet is enclosed.
- c.  The Commissioner is hereby authorized to charge any additional fees which may be required, or credit any overpayment to Deposit Account No. 13-2490. A duplicate copy of this sheet is enclosed.
- d.  Fees are to be charged to a credit card. **WARNING:** Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038.

**NOTE:** Where an appropriate time limit under 37 CFR 1.495 has not been met, a petition to revive (37 CFR 1.137(a) or (b)) must be filed and granted to restore the International Application to pending status.

SEND ALL CORRESPONDENCE TO:  
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Suite 3100  
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SIGNATURE  
Anita J. Terpstra, Ph.D.  
NAME  
47,132  
REGISTRATION NUMBER

CERTIFICATE OF MAILING UNDER 37 CFR §  
1.8: The undersigned hereby certifies that this  
Transmittal Letter and the papers as described  
hereinabove, are being deposited with the United  
States Postal Service with sufficient postage as  
Express Mail (EV 839382510) in an envelope  
addressed to: Commissioner for Patents, PO Box  
1450, Alexandria, Virginia 22313-1450 on July 26,  
2006.



The PTO did not receive the following  
listed item(s) ✓ 10 check

9

10/587253

MAP11 Rec'd PCT/PTO 26 JUL 2006

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE  
(Case No. 05-1003-B5)

In the Application of:

FRIEDMAN et al. )  
International App. No.: PCT/US2005/003483 ) Examiner: To Be Assigned  
U.S. Serial No.: To Be Assigned )  
Filing Date: Herewith ) Group Art Unit: To Be Assigned  
For: MAN2AS As Modifiers of the IGFR )  
Pathway and Methods of Use )

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

TRANSMITTAL LETTER

Sir:

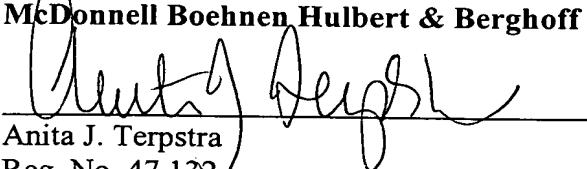
1. The Compact Disc contained herein ("060725\_0959") submitted under 37 C.F.R. § 1.52(e):

- Is formatted for IBM-PC Machines
- Is compatible with MS-Windows Operating System
- Contains the file "05-1003-B EX05-005 SeqList.txt" which is 41,851 bytes in size and created on 07/25/2006.

2. Statement under 37 C.F.R. § 1.52(e)(4): The undersigned certifies that the CD-R submitted herein, titled "060725\_1005" (COPY 1) and the CD-R entitled "060725\_1020" (COPY 2) are identical in content as required by C.F.R. § 1.52(e)(4).

Respectfully submitted,  
McDonnell Boehnen Hulbert & Berghoff

Dated: July 26, 2006

By: 

Anita J. Terpstra  
Reg. No. 47,132

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